United States District Court,
District of Columbia.

THOMSON CONSUMER ELECTRONICS, INC,
Plaintiff/Counterclaim Defendant.
v.
INNOVATRON, S.A,
Defendant and Counterclaimant.
v.
Thomson Multimedia, S.A,
Counterclaim Defendant.
v.
Thomson Televisiones De Mexico, S.A. De CV,
Counterclaim Defendant.

No. Civ.A. 97-2253 (JHG)(AK)

March 26, 1999.

In action for infringement of patent for portable electronic card, parties sought construction of claims. After holding *Markman* hearing, the District Court, Joyce Hens Green, J., held that: (1) "corresponding contact surfaces" referred to more than one contact surface, but not necessarily all contact surfaces, and (2) neither "predetermined operations" nor "predetermined expected response" required determination of operation or response at time of design of electric device which could not change over time.

Claims construed.

4,404,464. Construed.

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John Williams Polk, Kevin Michael O'Brien, Baker & McKenzie, Washington, DC, for Innovatron, S.A., defendant.

George Brian Busey, Morrison & Foerster, LLP, Washington, DC, Rachel Krevans, Harold J. McElhiny, Morrison & Foerster, L.L.P., San Francisco, CA, for Thomson Televisiones De Mexico, S.A., Thomson Multimedia, counter-defendants.

MEMORANDUM OPINION AND ORDER

JOYCE HENS GREEN**, District Judge.**

At the request of the parties, this Court held a *Markman* hearing to construe the terms of a United States patent owned by defendant and counterclaimant Innovatron, S.A. ("Innovatron"). At issue are two method claims describing the process for electrically connecting a portable card-the precursor of today's "smart cards." The background for this lawsuit is set forth in Thomson Consumer Electronics, Inc. v. Innovatron, S.A., 3 F.Supp.2d 49 (D.D.C.1998).

MARKMAN HEARING

[1] Under patent law, an inventor sets forth the invention to which he claims exclusive rights in a series of claims. In litigation, interpretation of the terms used in patent claims has been declared to be a matter of law to be decided by the Court. *See* Markman v. Westview Instruments, Inc., 52 F.3d 967, 978-81, 987 (Fed.Cir.1995) (en banc), *aff'd,* 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). In cases where a party's view that a patent has been infringed or is invalid turns on how the claims are construed, the *Markman* decisions suggest a procedure for claim construction early in the case-a *Markman* hearing-to facilitate resolution of patent cases as a matter of law. *See* MediaCom Corp. v. Rates Technology, Inc., 4 F.Supp.2d 17, 21-22 (D.Mass.1998) ("These hearings run the gamut from mid-trial sidebar conferences that undergird relevance rulings ... to virtual mini-trials extending over several days and generating extensive evidentiary records.") (citations omitted).

In this case, the parties mutually requested at the initial scheduling conference that the Court schedule a free-standing *Markman* hearing to resolve their interpretive disputes at an early stage of the case. The Court was told that her claim construction would allow the parties to evaluate whether the case could be resolved by dispositive motions. Relying on the expertise of the experienced patent litigators on both sides, who invited the Court to jump on the *Markman* bandwagon, the Court did so. Having been through the process-which was not uninteresting-the Court now has some misgivings. FN1 The parties have an actual and concrete dispute about the meaning of many of the claim terms. However, their request for construction of those terms is not tied to any specific request for relief. Review of the proposed orders submitted by the parties after the hearing demonstrate that what is sought borders on an advisory opinion in violation of Article III's case or controversy requirement. FN2

FN1. Counsel for both parties were quite well prepared and efficient in their respective presentations. The Court fully believes that counsel requested a *Markman* hearing in good faith as the most efficient way to proceed. Indeed, the procedure they recommended has been adopted by local rule in one District. *See* N.D.Cal.R. 16-10, 16-11 (Supp.1997).

FN2. *See* U.S. CONST. art. III, s. 2; MediaCom, 4 F.Supp.2d at 22 & n. 2; *cf.* University Med. Ctr. of Southern Nevada v. Shalala, 5 F.Supp.2d 4, 7 (D.D.C.1998). The preference for early Markman hearings poses a problem of priorities. If a party's infringement claim requires a certain construction of disputed terms, *A, B,* and *C,* it would be helpful for the Court to know that-through briefing on infringement-when construing the patent. To support a ruling of non-infringement, the Court need only construe one of those terms adversely to the patentee, leaving the other two terms for construction another day.

On the other hand, requiring counsel to simultaneously brief claim construction and infringement would require a great deal of argument in the alternative-to cover ever possible claim construction permutation-which could be avoided by taking up claim construction in advance of argument on infringement.

In hindsight, these dueling considerations may best be balanced by some form of bifurcated proceeding, the contours of which will have to be elucidated in another case.
Indeed, during the *Markman* hearing, the Court was urged to render blind justice in construing the patent claims without receiving information concerning how a certain construction might influence either the infringement or validity analysis; the fear being that the claim construction might be unduly influenced by knowledge of the allegedly infringing device's method of operation. The Court fully recognizes the principle that the claim terms are to construed without regard to how the claims might read on a specific device, but that can be accomplished in connection with a specific request for relief. Under the unique circumstances of this case, in which the parties have fully litigated some of their claim contentions in the context of requests for relief before the International Trade Commission ("ITC" or "the Commission"), the Court is willing to construe the terms as requested. However, because the Federal Circuit currently is reviewing the Commission's construction of a number of these same terms, this Court expressly reserves the right to revisit the claim construction herein when the Federal Circuit's final decision is released.

CLAIM CONSTRUCTION

A. Legal Standards Governing Claim Construction

[2] Claim construction requires a degree of imagination from the Court. First, the Court must obtain sufficient currency with the technical terms employed to read the patent because the objective of claim construction is to ascertain the meaning that a person of ordinary skill in the art would give to the terms in dispute. *See* Wiener v. NEC Electronics, Inc., 102 F.3d 534, 539 (Fed.Cir.1996); Haynes Int'l, Inc. v. Jessop Steel Co., 8 F.3d 1573, 1578 n. 4 (Fed.Cir.1993). Second, the Court must travel in time, for the operative time for interpreting the claim terms is the date of the application for the patent. *See* Wiener, 102 F.3d at 539.

In this case the parties agree that the requisite degree of skill to read the '464 patent is two years of formal training in electrical engineering or one year of practical experience. *E.g., Markman* Hrg.Tr. [hereafter "Tr."] (June 30, 1998, a.m.) at 41-42 (testimony of Dr. Roman Kuc ("Kuc")). The parties further agree that the relevant date is January 28, 1978, when the inventor, Roland Moreno ("Moreno") filed his foreign application. *See* Tr. (June 30, 1998, p.m.) at 18-19.

[3] When interpreting the claims, the Court may resort to certain sources, which are arranged in hierarchical order. The Court looks first to those sources on which the general public may rely to ascertain the scope of a patent, i.e., the patent itself, which includes the claims and the specification, and, if relevant, the prosecution history before the Patent and Trademark Office (a.k.a. the "file wrapper"). *See* Comark Communications, Inc. v. Harris Corp., 156 F.3d 1182, 1186 (Fed.Cir.1998); Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996). These sources comprise the "intrinsic evidence" of the patent's meaning, and, together they are "the most significant source of the legally operative meaning of disputed claim language." Vitronics, 90 F.3d at 1582.

[4] Construction begins with the wording of the claims, asserted and non-asserted, which are to be examined in their entirety. *See* Bell Communications Research, Inc. v. Vitalink Communications Corp., 55 F.3d 615, 620 (Fed.Cir.1995). The claim's words and phrases should be given their ordinary and customary meaning. However, a patentee may choose to be her own lexicographer and use terms in a manner other than their ordinary meaning, as long as the special definition is clearly stated in the patent specification or

file history. Vitronics, 90 F.3d at 1582.

[5] Perhaps the most difficult rule of claim construction to apply is that the claims "must be read in view of the specification, of which they are a part." Markman, 52 F.3d at 979.

The specification contains a written description of the invention which must be clear and complete enough to enable those of ordinary skill in the art to make and use it. Thus the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.

Vitronics, 90 F.3d at 1582. However, the limitations of the specification may not be read into the claims. Comark, 156 F.3d at 1186. The Federal Circuit acknowledges that "there is sometimes a fine line between reading a claim in light of the specification, and reading a limitation into the claim from the specification." *Id*.

Prosecution history should also be considered as intrinsic evidence, including the record of proceedings before the Patent and Trademark Office. *See* Vitronics, 90 F.3d at 1582 (prosecution history is "often of critical significance in determining the meaning of the claims"). Those proceedings may incorporate the patentee's representations as to claim scope, together with a review of the prior art. *See* id. at 1583.

[6] "In most situations, an analysis of the intrinsic evidence alone will resolve any ambiguity in a disputed claim term." *Id*. However, if ambiguity remains, the Court may consult extrinsic evidence such as expert testimony, dictionaries or learned treatises. *See* Thomson, 3 F.Supp.2d at 52. Nevertheless, such extrinsic evidence may not contradict the manifest meaning of the claims as set forth, even by implication, in the specification and prosecution history. *See* Vitronics, 90 F.3d at 1584-85.

B. The '464 Patent

The '464 patent is entitled "Method and Apparatus for Electrically Connecting a Removable Article, In Particular A Portable Electronic Card." Claim 1 (independent) and Claim 8 (dependent from Claim 1) are set forth below. FN3

FN3. A comparison of the proposed orders submitted by the parties demonstrates which terms are in dispute and in need of construction. Those in bold face are terms addressed by both parties, those that are underscored are addressed only by Thomson and those in italics are addressed only by Innovatron. Where only one party has proposed a construction of a term, the Court will treat that construction as conceded by the other side to the extent that it does not conflict with the Court's construction of other terms and will not belabor the point in this opinion. *Cf*. Local Rule 108(h).

1. **Method for electrically connecting** a removable article having at least one electric circuit thereon, with an electric device, which **cooperates** with said removable article, said removable article having electrically conductive terminals and said electric device having conductor elements, both said electrically conductive terminals and said conductor elements having **corresponding contact surfaces,** the method comprising the steps of:
(a) **bringing, respectively,** said corresponding contact surfaces of said electrically conductive terminals into **contacting relationship** with said corresponding contact surfaces of said conductor elements;

(b) **testing** said corresponding contact surfaces for the existence of correct *alignment and electrical contact* between said corresponding contact surfaces; and

(c) **displacing said corresponding contact surfaces relatively, in a direction tangential to said corresponding contact surfaces if** *said testing determines* **non-alignment and non-existence of correct electrical contact,** and **stopping** the relative displacement of corresponding contact surfaces **when** said testing determines said *alignment and* existence of *correct electrical contact*.

8. Method as defined by claim 1 wherein said step of testing said corresponding contact surfaces for said existence of correct electrical contact comprises: performing **predetermined** *operations* which provide a **predetermined expected** *response from the removable article* **upon** the existence of correct alignment and electrical contact; and *comparing* the actual response of said removable article with the predetermined expected response.

'464 Patent, Col. 9, Ins. 54-68; Col. 10, Ins. 1-10, 51-59.

C. The Disputed Terms

Claim 1 preamble

1. "Method for Electrically Connecting"

The parties now agree that this is a statement of the invention's purpose and does not limit Claim 1.

2. "Cooperates"

The parties now agree that this term means that the removable article and the electric device act or work together.

3. "Corresponding Contact Surfaces"

[7] The method taught by claim 1 requires a "removable article having electrically conductive terminals and [an] electric device having conductor elements, both said electrically conductive terminals and said conductor elements having corresponding contact surfaces." Col. 9, Ins. 57-61. It is "plain" to Thomson-but not to the ALJ nor the Commission-that the term "corresponding contact surfaces" means "that all, not just a subset, of the corresponding contact surfaces of the electric device and the removable article be brought into electrical contact." Thomson's Post- *Markman* Reply (Proposed Order) [hereafter "Thomson's Prop. Or."]. Thomson argues that the natural reading of the plural is that the surfaces correspond in a one-to-one manner. Thomson argues for a one-to-one correspondence so that Claim 1's step (b), which calls for "testing said corresponding contact surfaces for the existence of correct alignment and electrical contact between said corresponding contact surfaces," requires that all surfaces be tested.

However, the cases Thomson cites do not support its "plain language" argument. *See* Texas Instruments v. United States International Trade Comm'n, 988 F.2d 1165, 1172 (Fed.Cir.1993) (reading plural to mean all on the basis of "the specification,the drawings and TI's own witness"); *see also* Digital Biometrics, Inc. v. Identix, Inc., 149 F.3d 1335, 1346 (Fed.Cir.1998) (discussing term "areas" in description to interpret claim

term "slice data").

Thomson also argues that during prosecution of a different claim, Moreno changed "at least one corresponding contact surface" to "corresponding contact surfaces" to overcome an indefiniteness objection.

Rejecting these arguments, the Commission held that "no language in the claim requires that all the card terminals and card reader elements be brought into contact and tested. We also agree with the ALJ that the use of the plural form indicates 'more than one' but does not necessarily mean 'all.' " *In the Matter of Certain Removable Electronic Cards,* Inv. No. 337-TA-396 (ITC Aug. 13, 1998) [hereafter "ITC"] at 5.

This Court finds the term "corresponding contact surfaces" ambiguous as it can mean either that the surfaces correspond one-to-one or that the surfaces on the removable article's conductive terminals correspond sufficiently to allow for electrical connection (less than one-to-one correspondence) with the surfaces on the electric device's conductor elements. Nor does Claim 1 require that the number of conductive terminals and conductive elements on which the "corresponding contact surfaces" rest match in a one-to-one fashion. Resort to the specification also does not require the limitation that Thomson would read in. Finally, the amendment during prosecution does not necessarily lead to the conclusion that all surfaces must be brought into contact. For these reasons, the term "corresponding contact surfaces" will be construed to mean "more than one contact surface, but not necessarily all contact surfaces."

STEP (a)

4. "Bringing, Respectively"

The first step of the method taught by Claim 1 is "(a) bringing, respectively, said corresponding contact surfaces of said electrically conductive terminals into contacting relationship with said corresponding contact surfaces of said conductor elements."

[8] Thomson construes "bringing, respectively" to mean "[t]he article and the device are brought face to face and then into physical contact in a direction that has at least one component of "normal" (perpendicular) motion." Thomson's Prop. Or. Thomson argues first that "bringing" is indefinite or a technical term. To save the term, Thomson argues that the normal motion limitation must be imposed either by reference to the specification or by operation of law under 35 U.S.C. s. 112 para. 6. The ALJ rejected Thomson's contention, and the Commission allowed the ALJ's construction to stand. This Court also finds no reason to read in the directional limitation Thomson suggests.FN4

FN4. Gentry Gallery Inc. v. Berkline Corp., 134 F.3d 1473, 1479 (Fed.Cir.1998) is distinguishable. In *Gentry,* the court narrowed a broad claim to the scope of the disclosure based on a series of considerations concerning the patent's purpose and the inventor's objective intent, which are not present in this case. Moreover, Thomson's general step-plus-function argument must be rejected. The very authority Thomson relies on does not support the argument. *See* O.I. Corp. v. Tekmar Co., 115 F.3d 1576, 1583 (Fed.Cir.1997) ("If we were to construe every process claim containing steps described by an 'ing' verb ... into a step-plus-function limitation, we would be limiting process claims in a manner never intended by Congress.").

As for the term "respectively," Innovatron would have this mean only that the corresponding contact surfaces are brought together correspondingly-with the contacts meeting A to A, B to B, etc. Within the sentence, however, the adverb "respectively" modifies the verb "bringing" to impose two limitations on how

the surfaces are brought together: (1) both the article's terminals and the device's elements are "brought," i.e., force is applied to both so that they move toward each other; and (2) the motion is not simultaneous-the removable article's terminals are first "brought" followed by the bringing of the device's elements to create the "contacting relationship." The specification confirms this reading because this is how the bringing step is accomplished in the preferred embodiment. If resort to extrinsic evidence is appropriate, the dictionary definition also supports this reading. *See* WEBSTER'S II NEW RIVERSIDE UNIVERSITY DICTIONARY [hereafter "WEBSTER'S II"] 1001 (1994) (defining "respectively" as "singly in the order indicated or mentioned").

The term "bringing, respectively," as used in step (a) of Claim 1, is construed to mean that force is applied to both the removable article and the device's electrically conductive elements such that the removable article is moved first followed by motion of the device's conductive elements until they are brought into a contacting relationship. No directional limitation on how these movements are accomplished is imposed by the term "bringing, respectively."

5. "Contacting Relationship"

[9] The bringing step calls for bringing "said corresponding contact surfaces of said electrically conductive terminals into contacting relationship with said corresponding contact surfaces of said conductor elements." Thomson argues that "contacting relationship" means "physical contact;" Innovatron argues that the term is one of art, meaning "a position favorable for correct alignment and electrical contact." The Commission held:

We agree with the ALJ's construction that a contacting relationship is not established at the instant of physical contact, but instead when the card terminals and card reader elements reach a position favorable for making contact, that is, when they are roughly centered with regard to each other.

ITC at 6. The Commission further opined, "[w]e agree that one of ordinary skill in the art would understand the bringing step to end with a position that allows a good chance of electrical contact." ITC at 7.

This Court is to interpret "contacting relationship" as one skilled in the art in 1978 would have understood the term. If the meaning were "physical contact" that meaning would be expressed far more readily by the phrase bringing the surfaces on the terminals "into contact" with the surfaces on the elements rather than "into contacting relationship." The term "relationship" adds a limitation. The Court holds that one skilled in the art would understand "contacting relationship" to mean that the terminals and elements are positioned favorably for good electrical contact. *See also* Tr. (July 2, 1998, a.m.) at 31 (testimony of Dr. Kuc).

STEP (b)

6. "Testing"

According to the method taught by Claim 1, the bringing step is followed by "testing said corresponding contact surfaces for the existence of correct alignment and electrical contact between said corresponding contact surfaces." Col. 9, lns. 67-68; Col. 10, lns. 1-2. The parties dispute, what is tested, when it is tested, and how it is tested.

[10] The issue of what is tested-"corresponding contact surfaces"-has been resolved above: more than one but not necessarily all contact surfaces. One skilled in the art would be able to practice this method to

determine electrical contact and correct alignment without testing each and every surface. The language does not compel the limitation that all surfaces be tested. *See also* Col. 6, lns. 57-62 ("To test whether or not the electric contact has been well established, it suffices to read the content of the first address.").FN5

FN5. As to when testing begins, Thomson again argues that under s. 112 para. 6, "testing" is too broad and indefinite and must be limited to the test set forth in the specification-i.e., a continuous test. That reading, however, is inconsistent with the terms of Claim 5 (dependent from Claim 4, which is, in turn, dependent from Claim 1), which teaches steps a-c practiced in sequence. As Claim 5 is narrower than Claim 1, limiting Claim 1 to a continuous test would conflict with the terms of Claim 5. The Court is not persuaded that a continuous testing limitation must be imported to save Claim 1, step (b) from invalidity. *Cf.* Renishaw PLC v. Marposs Societa' per Azioni, 158 F.3d 1243, 1248-49 (Fed.Cir.1998) ("Without any claim term that is susceptible of clarification by the written description, there is no legitimate way to narrow the property right.").

The substantial dispute between the parties concerns how testing occurs. To resolve this dispute, two other terms must be construed.

The test in step (b) tests for "the existence of correct alignment and electrical contact between said corresponding contact surfaces." The parties appear to agree that the test is at least to determine the presence of two conditions vis-a-vis the corresponding contact surfaces: (1) correct alignment; and (2) electrical contact. According to the Commission, "[t]he ALJ construed the testing limitation of step (b) to require a test that is expressly for the purpose of determining proper alignment and correct electrical contact..... We agree with and adopt the ALJ's construction [not challenged]." ITC at 23.

The test is conjunctive, and the implication is that if *either* condition is not met, the test fails. However, testing is followed by the "displacing" step (c) "if said testing determines non-alignment *and* non-existence of correct electrical contact." (emphasis added). Innovatron urges the Court to convert "and" into "or," as one skilled in the art would do. *See* Tr. (June 30, 1998, p.m.) at 53-54 (Dr. Kuc). Otherwise, steps (b) and (c), read literally, leave a gap. The method would be practiced by bringing the contact surfaces into contacting relationship, testing the surfaces, and no further action taking place, even if the test revealed the non-existence of correct electric contact-the very purpose of the patented method-so long as the other condition (correct alignment) was present. The same result would follow from the inverse situation.

As anomalous as this reading may seem, Thomson argues that Innovatron is stuck with Moreno's poor drafting. Moreover, that drafting was the product of an agreement made with the Patent and Trademark Office ("PTO"). The term "non-alignment and non-existence of electrical contact" was drafted in response to the examiner's indefiniteness objection. The examiner wrote:

Applicant's attorney provisionally agreed [sic] amending Claim 19 [issued Claim 1] to include limitation of alignment in Claim 19, paragraph b after "correct" and in Paragraph C to include "non-alignment and" after "determines" and in penultimate line to recite "alignment and". The remaining claims will be amended as per attached draft. *The specification will be amended accordingly*.

'464 Patent Prosecution History [hereafter "Prosecution History"] at II00150 (Tab 14) (emphasis added). Neither the disclosure of the invention, nor its preferred embodiment in the specification requires a positive test for non-alignment and non-existence of electrical contact. *See, e.g.,* Col. 2, lns. 18-24; Col. 6, lns. 57-

[11] Where the literal language of a claim, read in isolation, leads to an absurd result-a method that would patently fail to achieve its purpose; where the file wrapper indicates that the specification would reflect the bargain made with the PTO; and where the specification suggests that displacing occurs in the absence of either correct alignment or electrical contact, the Court is persuaded that one skilled in the art would read "non-alignment and non-existence of electric contact" to mean "non-alignment or non-existence of electric contact." *See* Renishaw, 158 F.3d at 1250 ("Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understandingof what the inventor actually invented and intended to envelop with the claim.").

In sum, the term "testing" in Claim 1, step (b) comprises a single, express test for correct alignment and electrical contact. The displacing step, Claim 1, step (c), is triggered if the test in step (b) fails because one or both conditions are not satisfied.

7. "Displacing Said Corresponding Surfaces Relatively In a Direction Tangential"

[12] Both parties agree that "displacing ... relatively" means moving the corresponding contact surfaces relative to each other. The three issues in dispute are (a) whether the surfaces need be in physical contact during displacement; (b) whether displacing can be accomplished manually; and (c) whether the displacing step is optional. The Court will reserve on the last issue, as it goes to infringement.FN6

FN6. The Court notes, however, that Thomson would apparently have step (c) read "displacing ... *when* said testing" rather than, as written, "displacing ... *if* said testing."

As to the physical contact limitation, the Commission held that contact was required. "We disagree that the 'in a direction tangential' limitation encompasses a displacing motion in which the corresponding contact surfaces are separated before displacing and then brought back into contact." ITC at 11. Because displacing follows the bringing step, "the displacing begins while the corresponding contact surfaces are in physical contact." ITC at 11. "[W]e construe 'displacing ... in a direction tangential to said corresponding contact surfaces' to mean that the contact surfaces are moved relative to each other in any direction provided that they remain in contact." ITC at 12.

This Court agrees with the Commission on this point. The portion of the specification on which both parties rely is better understood to contemplate constant contact:

(c) displacing in an oscillatory or alternating and relative fashion the two contact surfaces, around a median point, in a direction tangential to their surface, *at least as long as these surfaces are in contact*. This oscillatory movement can be carried out while the two contact surfaces are constantly in contact and it may equally be carried out by successive passes, i.e. by a repetition of the contacting process.

The purpose of this step of the process in combination with the other steps is to cause an electric contact while limiting the obstruction of the surfaces by virtue of the displacement around a median point.

Col. 2, lns. 6-17 (emphasis added). The Court has fully considered all of Innovatron's arguments to the contrary, including the arguments based on application Claim 6 and Claim 5. These arguments are

unpersuasive largely for the reasons advanced by Thomson and the Commission, except that no ruling here is made on how step (c) reads on removal and reinsertion of a removable article. That also is a question to be addressed in the infringement analysis.

As to whether manual displacement can take place, it can. Read literally, nothing in step (c) limits displacement to electric movement only. Moreover, alternative embodiments discussed in the specification contemplate manual displacement. *See* Col. 8, lns. 26-37 ("Such a solution makes possible, *notably in the absence of a motor,* to manually introduce the card without having to be concerned with the instant when the contact is correctly established."); *see also* ITC at 14 ("[T]he inventor expressly indicated that displacing can be performed manually...."). The one portion of the prosecution history on which Thomson relies to argue that Innovatron is estopped from arguing for manual displacement does not bear the weight given it. In context, Moreno's argument that his invention was novel because no prior art disclosed a method or apparatus testing for proper alignment, "and subsequently aligned, by an electric device which test to see if the card emits the correct response" was not intended or understood to limit his claim to electric displacement. *See* Prosecution History at II00133.

8. "Stopping ... when"

[13] The displacing step (c) also provides for "stopping the relative displacement of corresponding contact surfaces when said testing determines said alignment and existence of correct electrical contact." As with displacing, the parties dispute whether stopping can be done manually. They also dispute whether "stopping ... when" requires stopping as soon as the test is positive or whether the claim embraces a more leisurely stopping as well.

As to whether stopping may be manual, the ALJ concluded that it could be. *In the Matter of Certain Removable Electronic Cards,* Inv. No. 337-TA-396 (Initial Determination) [hereafter "ID"] at 55. The Commission disagreed. "We believe that the failure to describe a display element of some kind, or otherwise indicate how the user would know to perform stopping, is significant." ITC at 14. "[W]e find that the specification does not teach that stopping can be performed manually."

This Court also finds that stopping cannot be accomplished manually. The term "stopping" alone does not require this result. But taken in context, the specification clearly contemplates automated stopping. Even in the alternative embodiment allowing for manual *displacement,* the inventor presumes that stopping will be accomplished by the electric device rather than the card holder. Col. 8, lns. 26-37. As to the Commission's reasoning, it is not just the absence of a display element but the absence of any means for ensuring that once good electrical contact is achieved, it is maintained during manual stopping. Thomson's reference to the file wrapper is more on point for this purpose, because Moreno did stress to the PTO the non-obviousness and novelty of his invention for performing a electric test to achieve good contact. The Court understands Moreno's statement that in his invention the card is "subsequently aligned[ ] by an electric device," although appearing to refer to displacing, actually refers to stopping because the card is "aligned" at the point that displacement stops. *See* Prosecution History at II00133.

On the question of how quickly stopping occurs, Thomson urges that it be done as soon as possible. Innovatron argues that the term "stopping ... when" does not mean "stopping ... as soon as" but "stopping ... if" good contact has been established, without a temporal limitation. The Commission held that

[T]he phrase 'stopping ... when' [ ] mean[s] stopping that occurs as a result of a positive test for correct

alignment and electrical contact, and that is instantaneous or nearly instantaneous such that relative displacing is halted before the corresponding contact surfaces are moved from a position of proper alignment and correct electrical contact to a position out of such alignment and contact.

ITC at 15.

This Court concurs in the Commission's reading. The most common use of the term "when" is to indicate a point in time. For example, of the six definitions set forth in one respectable dictionary, the first five have a temporal meaning; only the sixth supports Innovatron's conditional reading. *See* WEBSTER's II at 1313; *see also* Renishaw, 158 F.3d at 1250-53 (construing "when" to mean "as soon as" rather than "upon condition" after extensive discussion). The specification also supports reading "when" to mean "as soon as." When disclosing his invention, Moreno wrote:

(d) Testing ... and stopping the ... displacement *when* the electric contact has been established. This step of the process has as it [sic] purpose, in combination with the preceeding [sic] steps, to facilitate the *rapid* placement in contact because *as soon as* this has been done, the process stops.

Col. 2, lns. 18-24. Either the specification guides selection of which ordinary meaning to ascribe to "when," *cf*. Renishaw, 158 F.3d at 1251, or, alternatively, even if "when" did not have "as soon as" as its ordinary meaning, Moreno has acted as his own lexicographer and imposed that meaning in the disclosure.

CLAIM 8

Claim 8 depends from Claim 1. Claim 8 sets forth a separate invention more limited in scope than that set forth in Claim 1. *See* 35 U.S.C. s. 112(4). Specifically, Claim 8 further clarifies and limits how "testing" is accomplished.

Claim 8 is as follows:

Method as defined by claim 1 wherein said step of testing said corresponding contact surfaces for said existence of correct electrical contact comprises: performing predetermined operations which provide a predetermined expected response from the removable article upon the existence of correct alignment and electrical contact; and comparing the actual response of said removable article with the predetermined expected response.

9. "Predetermined Operations" and "Predetermined Expected Response"

[14] The parties disagree about the meaning of "predetermined" and "expected." Curiously, Innovatron urges a narrow reading under which, " '[p]redetermined operations' and 'predetermined expected response' are technical terms and mean operations and responses, respectively, that are established at the time of design and do not change over time." Innovatron's Prop.Or.

Thomson, on the other hand, argues that:

'Predetermined' means 'determined beforehand.' 'Expected' means 'predicted' or 'to look forward to the probable occurrence or appearance of.' Neither word requires a determination at the time of the design of the electric device which cannot change over time.

Thomson's Prop.Or.

The ALJ adopted Innovatron's narrow construction. The Commission disagreed. "We find nothing in the specification or the claim that indicates that predetermined operations must be established at the time of design." ITC at 8. "[W]e believe 'predetermined' should be construed to have its ordinary dictionary definition." "Accordingly, we construe 'predetermined' to mean determined or decided in advance." ITC at 9. "We also disagree with the ALJ's construction that 'expected' means 'not changing over time.' We find no indication in the patent that expected should be construed other than in accordance with its ordinary dictionary meaning." "Taking these definitions together, we construe 'expected' in the phrase 'a predetermined expected response' to mean a response that is predicted to occur." ITC at 9.

The burden is on Innovatron to show that "predetermined operations" and "predetermined expected response" are technical terms narrower in scope than when used ordinarily. Innovatron argues that these "are not terms that one normally confronts in everyday conversation." Innovatron's Post-Hrg. Reply at 22. Innovatron argues that this observation justifies reliance on extrinsic evidence. Innovatron then relies on Dr. Kuc's testimony to support its argument.

The Court will not go down that path. Innovatron cites no authority for the proposition that a term not frequently used in conversation must be a term of art. On the contrary, "[a]bsent a special and particular definition created by the patent applicant, terms in a claim are to be given their ordinary and accustomed meaning." Renishaw, 158 F.3d at 1249. Nothing in the claim language, the specification, nor the prosecution history indicates that Moreno intended a "special and particular definition" to attach to these terms. Moreover, reading "predetermined" to mean "determined beforehand" and "expected" to mean "predicted" is entirely consistent with the purpose of the method and the specification.FN7

FN7. Independently, the Court has considered and rejected two arguments that would support Innovatron's reading. First, it may have been that in 1978 "predetermined" meant at the time of design because the technology required that the system be hard wired. However, no persuasive evidence was introduced to compel that result. Second, the term "predetermined expected response" is potentially redundant when given its ordinary meaning. The term "expected" implies that a determination or prediction has been made prior to receipt of the response. That being so, "predetermined" only makes express a necessary implication of the term "expected." However, "predetermined" does not require "at the time of design," and the Court is persuaded that "predetermined" adds enough by requiring that the "expectation" arise from a conscious prediction to find that giving the terms their ordinary meaning does not produce a redundancy.

10. "Upon"

[15] Testing in Claim 8 comprises, *inter alia,* "performing predetermined operations which provide a predetermined expected response from the removable article upon the existence of correct alignment and electrical contact." As with "when," the parties dispute whether the response must be given "as soon as" the existence of correct alignment and electrical contact is detected or whether the response is given "on condition that" alignment and contact are detected, again without a temporal limitation.

The ALJ determined that "upon" had no temporal component. ID at 51 & n. 18. The Commission did not review that decision.

This Court finds that for many of the same reasons that "when" is construed in its temporal sense, "upon" must also mean "as soon as." Like "when," the term "upon" has as an ordinary meaning either construction. To determine which prevails, attention must be given to the purpose of the claim in question. *See* Renishaw, 158 F.3d at 1251-52. As a dependent claim, Claim 8 shares independent Claim 1's purpose in the testing step "to facilitate the rapid placement in contact because as soon as this has been done, the process stops." Col 2, lns 23-24. Because "stopping ... when" requires a rapid response to the existence of correct alignment and electrical contact so too does the predetermined expected response to those conditions require a rapid response to provide for rapid stopping.

CONCLUSION

Accordingly, it is hereby

ORDERED that the following claim terms as used in Claims 1 and 8 of United States Patent # 4,404,464 are construed as follows:

1. "Method For Electrically Connecting": This phrase is a general statement that the patented invention is a method having the purpose of electrically connecting a removable article with an electric device. It is not a claim limitation.

2. "Cooperates": The term "cooperates" means that the removable article and the electric device are intended to act or work with one another.

3. "Corresponding contact surfaces": This term refers to more than one contact surface, but not necessarily all contact surfaces.

4. "Bringing, Respectively": This term means that force is applied to both the removable article and the device's electrically conductive elements such that the removable article is moved first followed by motion of the device's conductive elements until they are brought into a contacting relationship. No direction limitationon how these movements are accomplished is imposed by the term.

5. "Contacting Relationship": This term means that the terminals and elements are positioned favorably for good electrical contact.

6. "Testing": This term comprises a single, express test of more than one but not necessarily all corresponding contact surfaces for correct alignment and electrical contact. The displacing step, Claim 1, step (c), is triggered if the test in step (b) fails because one or both conditions are not satisfied.

7. "Displacing ... In a Direction Tangential": This term is not limited to electric displacing but it requires physical contact during displacement.

8. "Stopping ... when": This term requires electric stopping and occurs as soon as testing yields a positive result.

9. "Predetermined" and "Expected": "Predetermined" means "determined beforehand." "Expected" means "predicted" or "to look forward to the probable occurrence or appearance of." Neither word requires a determination at the time of the design of the electric device which cannot change over time.

10. "Upon": This term means "as soon as."

IT IS SO ORDERED.

D.D.C.,1999.
Thomson Consumer Electronics, Inc. v. Innovatron, S.A.